

SUPPLEMENTARY TABLE 1

| Variable | Univariate Logistic Regression | | | | Multivariate Logistic Regression | | | | Multivariate Logistic Regression of the Best-Fit Model | | | | Collinearity | |
|----------------------------------|--------------------------------|---------------|-------|---------------------------|----------------------------------|-------------|-------|---------------------------|--|-------------|-------|---------------------------|--------------|------|
| | Odds ratio | 95% CI | Sig. | Nagelkerke R ² | Odds ratio | 95% CI | Sig. | Nagelkerke R ² | Odds Ratio | 95% CI | Sig. | Nagelkerke R ² | Tolerance | VIF |
| Fasciculation Frequency | 1.21 | 1.08-1.37 | 0.002 | 0.67 | 1.27 | 1.07-1.52 | 0.007 | 0.73 | 1.27 | 1.07 -1.52 | 0.008 | 0.73 | 0.87 | 1.15 |
| Median Amplitude | 1.04 | 1.01-1.07 | 0.019 | 0.16 | 1.07 | 1.00-1.14 | 0.058 | | 1.07 | 1.01-1.14 | 0.028 | | 0.32 | 3.12 |
| Amplitude Dispersion | 1.02 | 0.99-1.04 | 0.159 | 0.05 | 1.01 | 0.97-1.04 | 0.810 | | - | - | - | | 0.43 | 2.33 |
| Proportion IFIs <100ms | 2.07 | 0.004-1046.46 | 0.819 | <0.001 | <0.001 | <0.001-4.23 | 0.079 | | <0.001 | <0.001-3.68 | 0.076 | | 0.64 | 1.57 |

Supplementary Table 1. Association of fasciculation potential measures with the diagnosis of ALS.

Best-fit model was identified using automated backward regression. The best-fit model, excluding the amplitude IQR, explained the same proportion of variance in the diagnosis of ALS (indicated by Nagelkerke R²) as the four-variable model and a similar proportion to the univariate fasciculation frequency model. Collinearity was not present. P values are approximated to the third decimal. Other values are approximated to the second decimal. P<0.05 denotes statistical significance.

ALS= Amyotrophic Lateral Sclerosis, IFI= Inter-fasciculation Interval, CI= Confidence Interval, Sig.= Significance, VIF= Variance Inflation Factor.